

4.5. BACKUP AND RESTORE CONFIGURATION

The settings in the Nordic ID HH83/HH85 can be exported to a file, which can later be imported in the same or another Nordic ID HH83/HH85 unit to apply the same settings. This enables an easy mass configuration and roll out of Nordic ID HH83/HH85 devices.

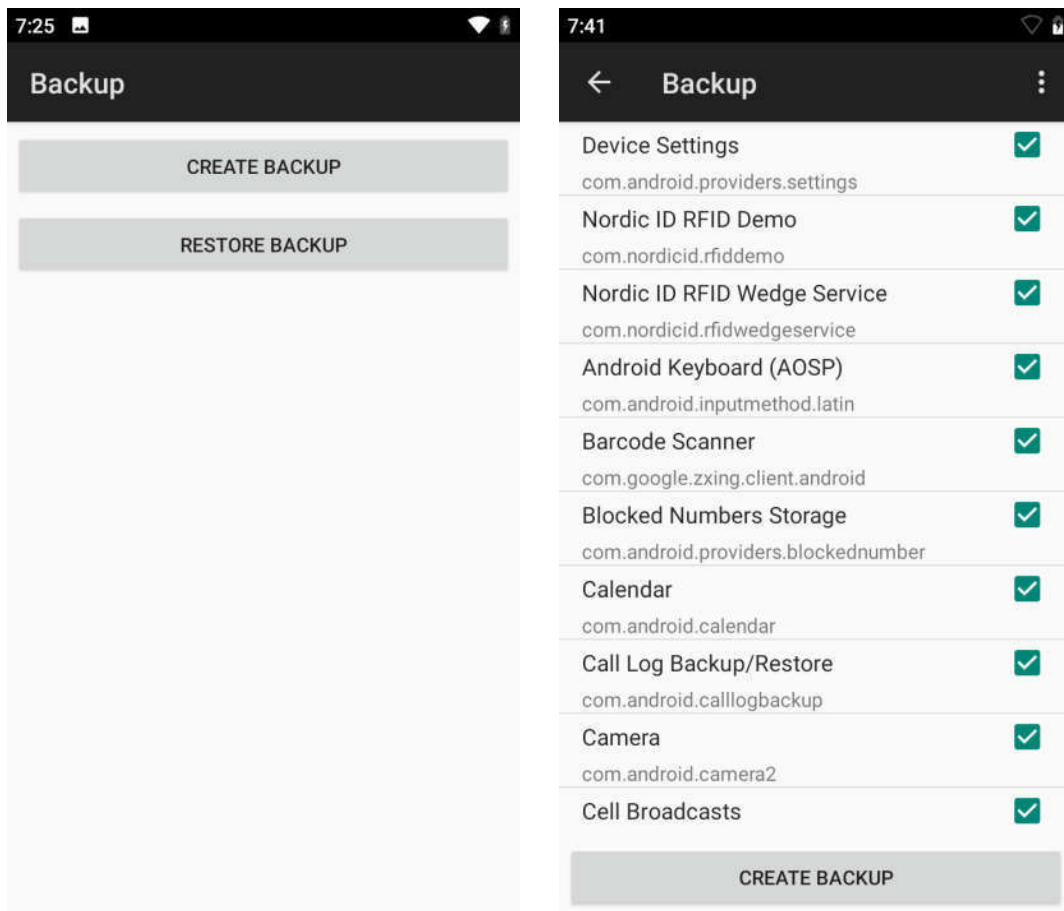
4.5.1. CREATE BACKUP

In order to create a configuration backup, please go to

Settings → System (Advanced) → Backup → Create Backup

These settings include e.,g. home screen shortcuts and widgets, WLAN configuration, apps settings.

NOTE! The backup does not include any installed app or files



Screenshot 12

4.5.2. MANUALLY RESTORE BACKUP

To restore a configuration backup, please go to

Settings → *System (Advanced)* → *Backup* → *Restore Backup*

and select the backup file to restore.

4.5.3. AUTOMATICALLY RESTORE BACKUP WITH USB DRIVE

The configuration can also be restored without using the Android user interface, just using a USB flash drive.

If the backup file is renamed to *“auto_restore_backup”* and saved in the root folder of a USB flash drive, the restore process will start automatically when the USB drive is plugged to a (powered on) Nordic ID HH83/HH85 device.

4.5.4. AUTOMATICALLY RESTORE BACKUP WITHOUT USB DRIVE

In Nordic ID HH83/HH85 devices which have never used the backup/restore option, the *“auto_restore_backup”* backup file can be saved in the Downloads folder, and the restore process will start automatically when the device boots.

4.5.5. SOFTWARE TRIGGERED RESTORE BACKUP

Any custom software can start the restore process by sending the ACTION_MEDIA_SCANNER_SCAN_FILE action to the configuration backup file.

This enables control to software developers to restore the settings on request and even to select which settings to restore, provided that several configuration backup files have been created.

4.6. FACTORY RESET

4.6.1. USING ANDROID MENU

To reset the device to factory settings, please go to

Settings → *System* → *Advanced* → *Reset options* → *Erase all data*

NOTE! This will return the device to the factory status, i.e., you will lose the configuration, installed apps and files on the device.

4.6.2. WITHOUT USING THE TOUCH SCREEN

If the touchscreen of the device is not responding or the Android OS is stalled, you can also use the physical keys of Nordic ID HH83/HH85 to reset the device:

1. Enter *fastboot mode* by booting the device while pressing the right-side key down.
2. Select “Recovery mode” using the side keys.
3. Press power key to confirm the selection and the device will reboot to “No command” state.
4. Press power key a few seconds and release it to enter the Android Recovery menu.
5. Select “Wipe data/factory reset” using the side keys.
6. Press power key to confirm.

4.7. ENTERPRISE MOBILITY MANAGEMENT (EMM)

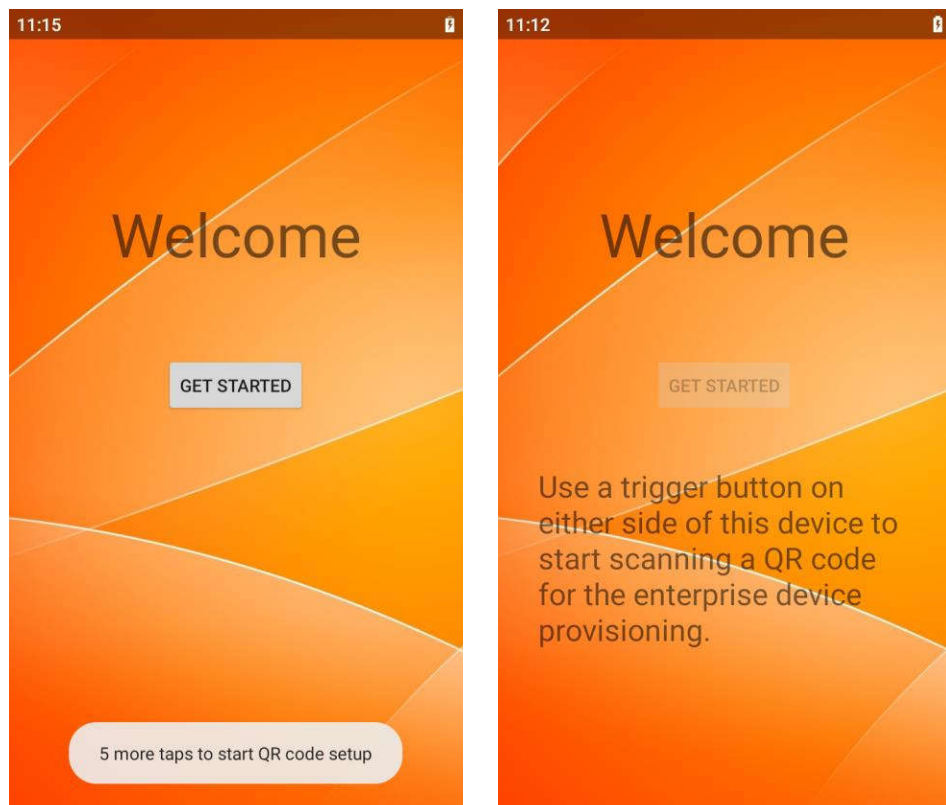
The Nordic ID HH83/HH85 supports the Android Enterprise Management framework, which enables using EMM (Enterprise Mobility Management) and MDM (Mobile Device Management) solutions.

These solutions provide an administrator (a person or a company) with remote management features such as device monitoring, device reporting, remote data wiping, mobile application management or access management. In a company-owned deployment scenario, the enterprise owns and fully controls the devices its employees or customers use.

The first step to enroll a Nordic ID HH83/HH85 on an EMM platform is to provision the device, which is a standard procedure in every Android device. You must provision the device owner mode of operation during the initial setup of a new device or after a factory reset. Device owner mode can't be provisioned on a device at any other time.

The provisioning process binds a device to an enterprise and sets a device up for management.

1. Before enrolling a device, the administrator creates an enrollment QR code with a management console or similar application in the EMM platform, using “Work Managed Device” or “Device Owner” management mode. This QR code contains an enrollment token and all the information that is needed for Android Device Policy to provision a device.
2. On a new or factory-reset Nordic ID HH83/HH85 device, the user (typically an IT admin) taps the screen six times in the same spot. This triggers the device to prompt the user to scan a QR code.



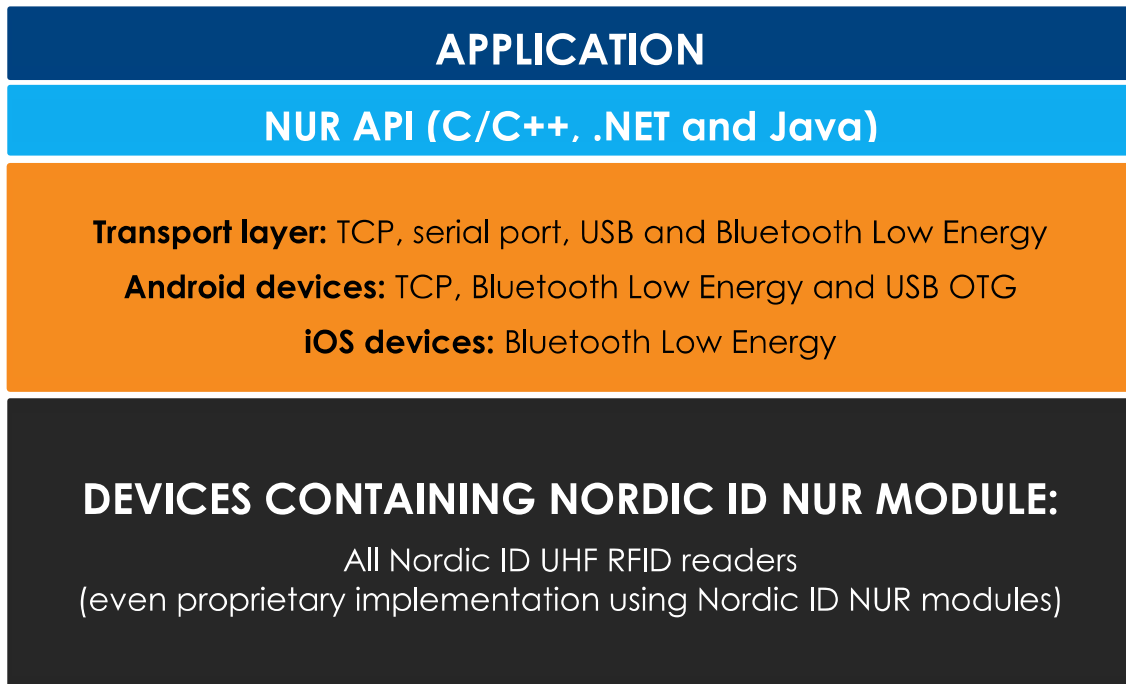
Screenshot 13

3. The user scans the QR code using the barcode scanner (imager).
4. The EMM app will be copied into the managed profile in Nordic ID HH83/HH85 and the user will be able to use it to enroll the device.

4.8. APPLICATION DEVELOPMENT

4.8.1. NUR API IN GENERAL

NUR API is an application programming interface for Nordic ID UHF RFID module. It provides control for all Nordic ID UHF RFID readers. The NUR API provides compatibility between Nordic ID UHF RFID reader from RFID functions perspective. The NUR API consists of application, NUR API, transport and HW layers as depicted here:



Picture 20 NUR API architecture

4.8.2. APPLICATION DEVELOPMENT

Nordic ID provides Software Development Kits (SDK) and code samples via GitHub. More information including source code and samples can be found from GitHub via following link:



Android

https://github.com/NordicID/nur_nurapi_android

https://github.com/NordicID/nur_nurapi_android

https://github.com/NordicID/nur_tools_rfiddemo_android

5. REGIONAL SETTINGS

Nordic ID UHF RFID readers do support operating frequency range between 860 - 960MHz. Some of the readers do cover full operating frequency band and some of them have two sub bands that are 868 ETSI band (865.6 - 867.6 MHz) and 915 FCC band (902 - 928 MHz). Regional organizations as ETSI and FCC have set rules and requirements for operating frequencies, output power and other RF parameters for the UHF RFID readers to comply local regional requirements.

Nordic ID has created set of regional settings in order to fulfill local regulations. Nordic ID is required to ensure compliance of Nordic ID products will remain after production. Solution for this is products including UHF RFID functionality will be set and locked in production based on customer order e.g. if a product is ordered to Europe, it will be locked to ETSI region. And for example, if a product is ordered to Australia region, then it's locked to Australia region. When a product is locked to individual region, it will comply local regulations of the region.

6. COMPLIANCE STATEMENTS

6.1. CE

Hereby, Nordic ID Oyj declares that this device is in compliance with the essential requirements and other relevant provisions of:

- RED: 2014/53/EU
- EMC: 2014/30/EU
- LVD: 2014/35/EU
- RoHS: 2011/65/EU

6.2. FCC/IC

The Nordic ID HH83 RFID ACD device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The Nordic ID HH83 RFID ACD device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

6.3. RF EXPOSURE

This equipment complies with EU, FCC and IC's RF radiation exposure limits set forth for an uncontrolled environment under the following conditions:

The Nordic ID HH83 RFID ACD device should be installed and operated such that a minimum separation distance of 20mm is maintained between the antenna and user's/nearby person's body at all times.

Nordic ID HH83 RFID ACD doit être installé et utilisé de manière à ce qu'une distance de séparation minimale de 20 mm soit maintenue à tout moment entre l'antenne et le corps de l'utilisateur / de la personne proche.

7. SERVICE AND SUPPORT

For technical enquiries regarding Nordic ID devices or software development, please contact our Technical Support:

E-mail: support@nordicid.com
Telephone: +358 2 727 7790

As a manufacturer, Nordic ID stands responsible for providing repair services for its devices during and after the warranty period. Together with partners Nordic ID serves customers globally. When your Nordic ID device needs repair, always use only our Nordic ID Service or our authorized service partners. We want to make sure that your Nordic ID product serves you the best possible way, and by using our preferred service partners the quality of the service is trustworthy and the spare parts are original. This way the existing product warranty remains, and you receive a 3-month service warranty for the repaired devices.

Nordic ID works together with full support and primary support partners. Full support partners can handle both warranty and non-warranty repairs on behalf of Nordic ID in their own regions. In addition, Nordic ID has a network of smaller repair centres, primary support partners, who offer the first line of support to their customers locally.

For any enquiries about Nordic ID repair service please contact:

E-mail: service@nordicid.com
Telephone: +358 2 727 7791

8. WARRANTY

Nordic ID warrants that the Products are at the time of delivery free from defects in materials and workmanship, provided the Products remain unmodified and are operated under normal and proper conditions. **Warranty period is the longer of twenty-four (24) months** from the date of delivery in case the Customer is end-customer or twenty-seven (27) months from the date of manufacture in case the Customer is reseller. Spare parts are warranted against defects in workmanship and materials for a period of ninety (90) days from the date of delivery to Customer.

For more detailed information about the warranty can be found from [Nordic ID Sales Terms](#).

9. RELATED DOCUMENTS AND CONTENT

- Nordic ID HH83 datasheet
- Nordic ID HH83 Quick Guide
- Nordic ID Safety and Regulations Guide
- Nordic ID GitHub account for developers (<https://github.com/NordicID>)

10. ABOUT NORDIC ID

Nordic ID is at the centre of today's real-time item tracking and reliable RFID technology. We help organizations fight the damaging effects of item loss, facilitate streamlined business procedures, and stay ahead of the competition.

We are ready to help you take advantage of our wide range of products and services designed to fit your needs. Contact us now, and we will help you to tackle your challenges and get your business to the next level.

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11. VERSION HISTORY

<u>Version</u>	<u>Date</u>	<u>Modifications</u>
1.0	22.08.2019	The first version
1.1	31.01.2020	Added Android screenshots, desktop charger description, ToF sensor, volume, backup option, new pictures
1.2	30.04.2020	Lock User Interface, pictures of accessories, compliance statements
1.3	18.05.2020	Nordic ID HH85, new backup restore modes, EMM support, Nordic ID App Center
1.4	20.04.2021	Factory reset, Asian variants, more details on EMM and App Center

12. APPENDICES

12.1. APPENDIX 1 SAMPLE 2D IMAGER CONFIGURATION BARCODES

NOTE! Barcode configuration codes can be read only when there is no active Bluetooth connection with the host device

Code 39

<p>Code 39</p>  <p>CODE39</p>	<p>Code39 Italian Pharmaceutical</p>  <p>A908557705</p>
<p>Code 39 Full ASCII</p>  <p>Code 39</p>	<p>Tri-Optic</p>  <p>R01260</p>

Codabar

<p>Codabar</p>  <p>01235</p>	<p>Codabar ABC</p>  <p>01234 56789</p>
<p>Codabar CX</p>  <p>12344 56784</p>	

Industrial 2 of 5 / Interleaved 2 of 5

<p>Industrial 2 of 5</p>  <p>1234567895</p>	<p>Interleaved 2 of 5</p>  <p>14901234567891</p>
<p>S-Code</p>  <p>987654326</p>	